Reservoir Operations *Study*

TVA

Boone Reservoir Operations Under the ROS Preferred Alternative

Background

The final Environmental Impact Statement (FEIS) for TVA's Reservoir Operations Study recommends changes in the policies that guide TVA's operation of the Tennessee River and reservoir system. These changes would better align TVA's operating policies with the values expressed by the public during the comprehensive study of how TVA operates the reservoir system.

The FEIS includes the Preferred Alternative developed by TVA staff based on extensive public and agency input and detailed technical analysis. The Preferred Alternative combines elements of the alternatives outlined last summer in the draft Environmental Impact Statement, including elements designed to enhance navigation, reservoir recreation, tailwater recreation, and scenic beauty. Adjustments also were made to avoid or reduce unacceptable impacts to other objectives, including flood risk, water quality, power supply, aquatic species, wetlands, and shoreline erosion.

Under the Preferred Alternative, TVA would no longer target specific summer pool elevations. Instead reservoir operations would be aimed at managing the flow of water through the system to meet the objectives identified by the public and others who participated in the scoping process conducted at the beginning of the study.

This approach would increase recreation opportunities on tributary storage reservoirs by limiting the drawdown of those reservoirs from June 1 through Labor Day, as long as rainfall and runoff are sufficient to meet project-specific and system-wide flow requirements. Flow requirements also would be used to protect water quality and aquatic resources, ensure year-round commercial navigation, and provide an adequate supply of cooling water for TVA's coal-fired and nuclear power plants. Additional water—beyond that required to meet flow requirements—would be released from tributary storage reservoirs only when necessary to preserve the reliability of the TVA power system.

Additional information on the ROS and TVA's Preferred Alternative is available online at www.tva.com/ros or by calling TVA toll-free at 888-882-7675. A printed copy of the FEIS also may be available at your local public library.

Next steps

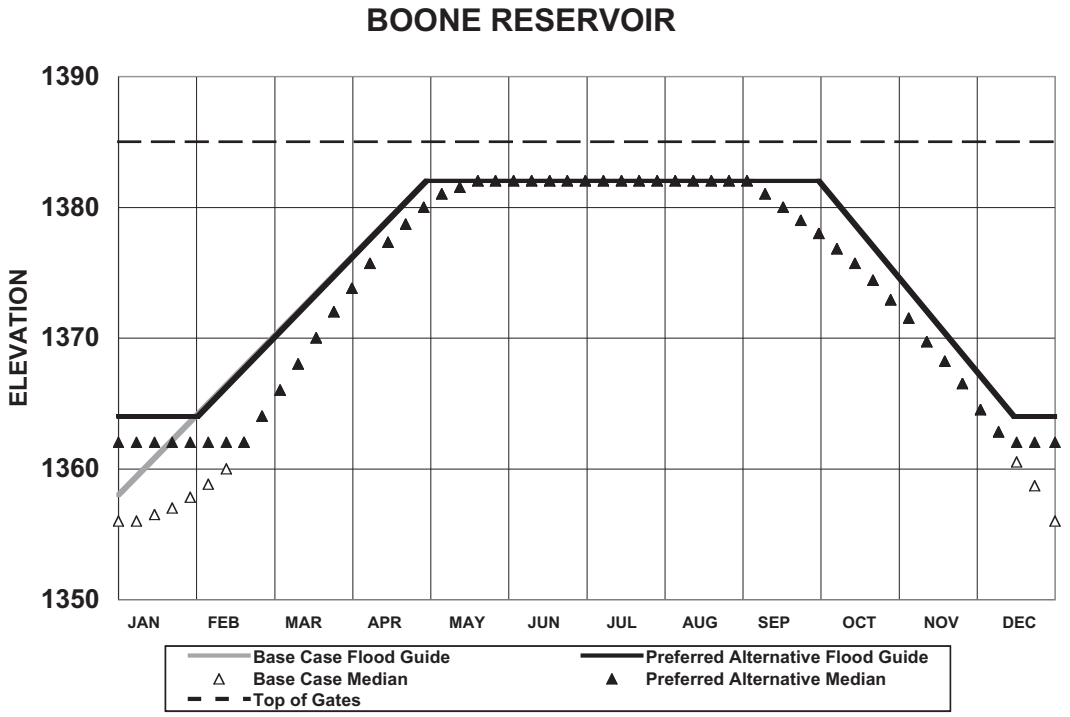
The public is invited to review and comment on the final Environmental Impact Statement (FEIS) for TVA's Reservoir Operations Study during a 45-day period continuing through April 12, 2004.

Comments may be submitted by accessing the ROS web site at www.tva.com/ros; by mail to TVA Reservoir Operations Study, WT 11A, 400 West Summit Hill Dr., Knoxville, TN 37902; or by fax to 865-632-3146. If you would like more information, please call TVA toll-free at 888-882-7675.

The TVA Board of Directors is expected to make a decision in late spring 2004 about whether to change TVA's reservoir operating policies.

How Boone will be affected

The Preferred Alternative would raise the winter flood guide level for Boone Reservoir from elevation 1358 to elevation 1364 as measured on January 1.



Top of Gates represents the maximum controlled elevation at a project, typically the top of a spillway gate in a closed position or crest elevation of an uncontrolled outlet structure.

Flood Guide is a seasonal elevation guide depicting the amount of storage allocated in a reservoir for flood reduction. When large inflows occur, the temporary use of the flood storage allocation at a given project may cause the reservoir level at the dam to rise above the flood guide line.

Preferred Alternative Median shows the probability of Boone being at a certain elevation at given times of the year under the Preferred Alternative. Based on computer simulations of the TVA reservoir system, Boone elevations would be at or above this line 50 percent of the time and at or below it 50 percent of the time.

For comparison, **Base Case Median** shows the probability of Boone being at a certain elevation at given times of the year under the Base Case (current reservoir operating policy). Based on computer simulations, Boone elevations would be at or above this line 50 percent of the time and at or below it 50 percent of the time.

Balancing Guide is a seasonal reservoir pool elevation that defines the relative drawdown at each tributary reservoir when water must be released to meet downstream flow requirements. Under this operating principle, water would be drawn from each tributary reservoir so that the elevation of each reservoir is similar relative to its position between the flood guide and the balancing guide.

The shaded area represents the **80 percent probability** bound for the Preferred Alternative. Based on computer simulations, Boone elevations would be in the shaded area 80 percent of the time.